OTTAWA COUNTY EXTENSION

SPRING QUARTER 2024

APRIL - JUNE

AGRICULTURE NEWS

Ottawa Co 2022 Ag Census

Hello Spring!

This Quarter's Topics

- Cattle External Parasites & Control
- Cow Productivity
- Avian Influenza in Dairy Cattle
- Common Garden Diseases
- Pasture Recovery
- Small Ruminant Resources
- Media Center Updates

It is the time of year for Soil Testing. Here are a couple of helpful tips when collecting and bringing your soil samples to the office.

When collecting & storing soil samples, avoid the use of any bag or container that holds in moisture.
Examples of this would be Ziploc bags & coffee cans. (These can be used if left unsealed.)
When sealed, these containers can alter many soil health parameters.
Soil sample bags & probes are available at the Extension office & would be best to use.

Did you know? Your soil sample results can be sent via email directly to you! This process allows you to receive your results the day they are evaluated by the Ag Educator. Just provide an email address when dropping off your sample by the office.

Reba Palmer
Ag Educator

If you have any ideas or topics you wish to be featured in the newsletter you can contact Reba Palmer via email, rmmccar@okstate.edu

UPCOMING EVENTS

April 22 - 24
OSU Cow/Calf Boot Camp

April 25 6pm - 8pm
ACE Ladies Night

April 27 - 28
Cowgirl Confident Conference

- Facebook Page

May 11 & 12
Ottawa County Swine Jackpot

May 30 12:30PM
Lake Country Pesticide Conference

- CEU Opportunity

June 10-12
Cattlewomen's Boot Camp
More Information

June 14 & 15
County Tag in for Fall Fair

June 29
Ottawa County Tractor Pull

OTTAWA COUNTY EXTENSION

EXTERNAL PEST AND PARASITE CONTROL FOR YOUR HERDS

JONATHAN A. CAMMACK, PH.D., ASSISTANT PROFESSOR AND STATE EXTENSION SPECIALIST

Howdy from the new OSU Extension Livestock Entomologist and Parasitologist! I started my position in late January, and am looking forward to meeting and working with you in the coming months and years. As we move into spring, it is once again time to protect our herds and ourselves from pests such horn flies, stable flies, and ticks.

Horn Flies

The best ways to manage horn flies with insecticides is with a two-pronged approach that targets both the larvae developing in the cow manure, and the adults feeding on the animals. Treat your herd with a feed through insecticide (insect growth regulator, IGR) to control larval horn flies beginning in March, so that the compound is present in the manure once the adult flies are seeking manure pats for egg-laying sites. Use feed additives or mineral supplements containing the active ingredients Diflubenzuron (products such as ClariFly®, HerdGuard™, or JustiFLY®) or Methoprene (products such as Altosid®, Dipteracide®, or Pertinent IGR), at a consumption rate of 4 oz/head/day. Make sure to continue providing the IGR through the end of October to have the greatest impact on the overall horn fly population impacting your animals.

Also, begin monitoring your herds for adult horn flies in March; once you see approximately 200 flies per animal (see Figure 1 below), it's time to tag your animals with insecticide-treated ear tags. Adult horn flies can be identified by their characteristic shape and feeding behavior: they typically feed with their heads pointing downward, and their wings held in a "V-shape". Make sure you are rotating chemical classes annually, and don't use the same ear tag/active ingredient as last year! A good rotational schedule to follow is: Year 1: synergized pyrethroid + macrocylic lactone combo (such as TRI-ZAP®); Year 2: organophosphate (such as Dominator®, Max40™, OPtimizer®, or Patriot™); Year 3: synergized pyrethroid (Such as CyLence Ultra®, PYthon®II, or SABER™ Extra); Year 4: macrocyclic lactone (such as XP820®). Continue to monitor adult horn fly populations on your animals throughout the season. For the most effective control, a second ear tag application may be necessary in the summer if fly numbers surpass 200 flies per animal, as ear tags will only be effective for 3-4 months. Also, rotational grazing can help reduce horn fly numbers by preventing the accumulation of fresh manure within the same pasture.

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Stable Flies

Stable flies can be distinguished from other fly pests of cattle based on their feeding behavior: they will usually be found on the lower legs of the cattle. Due to the painful bite, the economic threshold is quite low: 15 flies per cow; bites from stable flies disrupt feeding behavior in cattle, resulting in decreased weight gain. If you are feeding your cattle hay, make sure to rotate hay bale placement sites to prevent the buildup of urine- and manure-soaked hay, which is where larval development occurs. A granular IGR such as Cyromazine or Novaluron (products such as Flynexx® and Exhalt™) can be applied at hay feeding sites to help control developing larvae, as can providing the cattle with feed-through IGRs listed in the horn fly section above.

Ticks

Unfortunately, winter was not long or cold enough to have any real impact on tick populations, so we're likely in for a pretty heavy tick season/year. Gulf Coast Ticks are already active and feeding on animals, and throughout the rest of the spring Lone Star Ticks will become more active. If you are already working your animals for a spring deworming, the good news is, these Macrocyclic Lactones (such as Ivermectin®, Cydectin®, and Dectomax®) will also provide some control for ticks. Ear tags being used for horn fly control will also help control Gulf Coast Ticks. If you have pastures in which tick numbers have been high in the past, moving your herd to a different pasture in April or May, for two months, can help reduce tick populations.

In addition to protecting your animals, it is also equally as important to protect yourself from ticks. Ticks can vector several pathogens to people and are responsible for alpha-gal syndrome (AGS), or the red meat allergy. When working with your animals or walking in your pastures, take precautionary measures to prevent tick bites. Treat your clothing with permethrin to reduce the likelihood of a bite, conduct a tick check on your body after being out with your animals/in pastures, and remove ticks from your body as soon as possible.

Figure 1. A cow with approximately 200 horn flies present and bloodfeeding.
Photo Credit: Ashley Di Agostino, M.S. Graduate Student in Animal Science.

OTTAWA COUNTY EXTENSION

REDUCING MATURE WEIGHT AND INCREASING COW PRODUCTIVITY

MARK Z. JOHNSON, OKLAHOMA STATE UNIVERSITY EXTENSION BEEF CATTLE BREEDING SPECIALIST

The increasing mature weight of United States beef cows is concerning. Larger cows have higher nutrient requirements. Improving the efficiency, sustainability and profit potential of commercial cow calf production involves reducing feed costs while improving pounds of calf weaned. Reducing the mature weight of beef cows has a favorable impact on feed costs. Cumulative weight weaned throughout a cow's life in production is the result of total pounds of calves weaned and will be higher for cows that annually calve earlier, wean a healthy calf, and avoid being culled as a result of reproductive failure, unsoundness and bad disposition.

The Role of Selection and Mating

Mature cow size can be effectively controlled through sire selection. Mature cow weight is a high heritability trait with literature estimates ranging from 35 to 70%. Selection pressure applied to Mature Weight Expected Progeny Differences (EPDs) in sire selection should be an effective means of changing mature weight.

Fertility is low in heritability with estimates ranging from 0 to 15%. Selection pressure, based on additive genetic merit alone, results in very slow progress in improving fertility. Fertility is more largely influenced by nutritional environment and non-additive genetic merit. Non-additive genetic merit (or gene combination value) is the result of mating decisions. The mating decision to crossbreed generates hybrid vigor (or heterosis) because of the gene combination value created by combining alleles from two (or more) different breeds at loci across the genome. Considerable research by various State Agriculture Experiment Stations and the USDA has clearly demonstrated the potential for increasing beef cow productivity through crossbreeding. Accumulated experimental data indicates pounds of calf weaned per cow can be increased by as much as 25% in well designed, systematic crossbreeding programs involving Hereford, Angus and Shorthorn. Approximately half of this increase in total production is dependent upon use of the crossbred cow to take advantage of heterosis for fertility, reproductive fitness, longevity and maternal performance.

Crossbreeding is a mating system that provides the commercial producer the opportunity to increase the cumulative weight weaned throughout a cow's lifetime in production. A well-planned crossbreeding system requires a high level of management to reap maximum benefits. The same breeding principles should be applied to the selection of breeding stock for a crossbreeding program that would be used for a purebred program. In both cases, the use of genetically superior breeding stock will result in offspring with better performance levels. Once the decision has been made as to which breeds to include in a crossbreeding program, selection pressure should be applied based on the additive genetic merit (EPDs) of traits of primary economic importance.

Bottomline

Improving mature cow size and productivity can be accomplished in tandem through selection and mating decisions. Sire selection can be an effective means to reduce the mature size of a cowherd. Total pounds of calf weaned during the productive lifetime of a cow can be improved by a well-planned crossbreeding system.

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REDUCING MATURE WEIGHT AND INCREASING COW PRODUCTIVITY

MARK Z. JOHNSON, OKLAHOMA STATE UNIVERSITY EXTENSION BEEF CATTLE BREEDING SPECIALIST

References:

Snelling, W.M.; Thallman, R.M.; Spangler, M.L.; Kuehn, L.A. Breeding Sustainable Beef Cows: Reducing Weight and Increasing Productivity. Animals 2022, 12, 1745.

Brinks, J.S.; Clark, R.T.; Kieffer, N.M.; Quesenberry, J.R. Mature Weight in Hereford Range Cows – Heritability, Repeatability, and Relationship to Calf Performance. Journal of Animal Science 1962, Volume 21, Issue 3.

Evans, J.; McPeake, C.A.; Crossbreeding Beef Cattle.
OSU Cooperative Extension Fact Sheet AFS-3150

Mark Johnson, OSU Extension beef cattle breeding specialist, compares the expected progeny differences of bulls to help cattle producers improve their bottom line .

Breaking News

USDA AVIAN INFLUENZA FOUND IN DAIRY CATTLE

Detection of Highly Pathogenic Avian Influenza in Dairy Herds: Frequently Asked Questions

As of Friday, March 29, USDA's Animal and Plant Health Inspection Service (APHIS) has confirmed the detection of highly pathogenic avian influenza (HPAI) in dairy herds in Texas, Kansas, and Michigan. APHIS' latest update on the HPAI detections can be found in this press release.

APHIS is also investigating possible connections to other herds with cows exhibiting similar signs of illness, including additional herds in New Mexico, Texas, and Idaho. This is a rapidly evolving situation and USDA, as well as state and federal partners, are committed to sharing updates as information becomes available. Here, we are answering some of the most frequently asked questions about these detections.

How did these cattle contract HPAI?

Wild migratory birds are believed to be the source of infection. However, the spread of the illness among the Michigan herd also indicates that HPAI transmission between cattle cannot be ruled out.

Initial testing has not found changes to the virus that would make it more transmissible to humans. While cases among humans in direct contact with infected animals are possible, this indicates that the current risk to the public remains low.

Is this the same strain that has been in circulation among wild and commercial flocks in recent months, or is this a different strain?

Tests so far indicate that the HPAI detected in dairy cows is H5N1, Eurasian lineage goose/Guangdong clade 2.3.4.4b. This is the same strain and clade that has been affecting wild birds and commercial poultry flocks and has been detected in some wild animals.

How is a case of HPAI in cattle confirmed by USDA?

USDA encourages producers to work with their veterinarians to report cases of sick cattle to State Animal Health Officials and their APHIS Veterinary Services Area Veterinarian in Charge. Veterinarians should submit samples to a National Animal Health Laboratory Network (NAHLN) laboratory for initial testing. Samples with non-negative test results are then submitted to the National Veterinary Service Laboratories (NVSL) in Ames, Iowa for confirmatory testing. USDA considers a positive test result from NVSL tests as confirmation, and NVSL carries out viral genome sequencing, as needed.

What types of samples from cows have been tested?

USDA and our NAHLN partner laboratories have tested unpasteurized, clinical samples of milk, swabs and tissue samples collected from sick cattle.

Should we assume that other cattle that are showing similar symptoms, including decreased lactation, have also contracted HPAI?

We encourage producers to work with their veterinarians to pursue testing if their herds are demonstrating clinical signs of the current cattle illness event. Federal and state agencies continue to test samples from sick animals and conduct viral genome sequencing, to assess whether HPAI or another unrelated disease may be part of the clinical picture.

Combined with the recent detections of HPAI in baby goats in Minnesota, is there reason to be concerned HPAI may spread to mammals more commonly than previously believed?

HPAI has been found in wild birds, poultry flocks, several species of wild mammals, and neonatal goats in the United States. A full list can be found here. Many species are susceptible to influenza viruses, including wildlife that often come into direct contact with wild birds. Many of these animals were likely infected after consuming or coming into contact with birds that were infected with HPAI. In the case of the neonatal goats in Minnesota, they were exposed to domestic birds (ducks and chickens) infected with HPAI through shared pasture and a sole water source. However, recent testing indicates that HPAI transmission between cattle cannot be ruled out.

Why is USDA recommending caution when moving cattle? And, has the department considered requiring movement restrictions?

The spread of the HPAI within the Michigan herd indicates that bovine to bovine spread cannot be ruled out. As a result,

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we are encouraging producers and veterinarians to minimize dairy cattle movement. At this time, we expect that minimizing movement, upholding good biosecurity practices, and testing animals before necessary movements will limit disease spread sufficiently to avoid the need for regulatory restrictions or quarantines. Unlike in poultry flocks where HPAI is fatal, among the dairies whose herds are exhibiting symptoms, the affected animals have recovered with little to no associated mortality reported.

How is this cattle illness affecting the nation's overall milk production? What effect might this have on consumer prices?

At this point, we are not aware of impact on milk supply or consumer prices. Based on information available at this point, we do not anticipate that this will impact the availability or the price of milk or other dairy products for consumers. In addition, the U.S. typically has a more than sufficient milk supply in the spring months due to seasonally higher production. Markets continue to reflect normal movements. Surplus loads of milk for the past week are selling significantly below market value indicating supply remains very long.

What are the latest trends in HPAI detections and virus mitigation?

Recent detections of HPAI in poultry have slowed. So far in 2024, there have been 21 detections of HPAI in commercial poultry facilities, which is similar to the number in January-March of 2023 (17 detections). Both years are showing significant decreases in the number of detections compared to 2022, when we saw 59 detections in the January-March period, indicating that biosecurity practices and virus management have played a significant role in reducing impacts to commercial flocks.

What is the species of deceased wild birds that were found on the Texas farms?

At this time, three species have been identified among these cases: pigeons, blackbirds, and grackles.

Will the HPAI detection require herds to be depopulated, as is the case with detections in poultry flocks?

At this stage, we do not anticipate the need to depopulate dairy herds. Unlike HPAI in birds which is typically fatal, little to no mortality has been reported and the animals are reportedly recovering. The affected cows on the dairy farms are currently being isolated from other animals. We are continuing to learn more about the situation. Transparency and collaboration with and by dairy producers will be important to mitigate broader potential impacts to the industry.

Has this impacted beef cattle or the beef supply?

USDA is confident that the meat supply is safe. As always, we encourage consumers to properly handle raw meats and to cook to a safe internal temperature. Cooking to a safe internal temperature kills bacteria and viruses, like influenza, in meat.

How can farmers prevent the spread of HPAI to their animal s?

It is critically important that farmers practice good biosecurity measures. We are also encouraging producers with concerns to reach out to their veterinarian, State Animal Health Official, and/or Area Veterinarian in Charge.

If an animal is displaying signs of illness or tests positive for HPAI, the animal should be separated from other animals on the farm and heightened biosecurity measures should be taken to ensure HPAI does not spread to other species. Additionally, farmers are advised to avoid housing multiple species of animals together at any time.

More specific information on biosecurity practices are available:

Specific to dairy herds;

Specific to poultry flocks; and

General influenza biosecurity.

What signs of illness should farmers look out for in their herds?

Producers should report animals with the following clinical signs to their state veterinarian immediately:

Decreased herd level milk production; acute sudden drop in production with some severely impacted cows experiencing thicker, concentrated, colostrum-like milk; decrease in feed consumption with a simultaneous drop in rumen motility; abnormal tacky or loose feces, lethargy, dehydration, and fever. Initial cases indicated older cows in mid-lactation may be more likely to be severely impacted than younger cows and fresh cows or heifers. Additional data indicates younger cattle have been affected; more data and reporting from impacted producers will help to clarify the range of animals affected.

Will there be a milk recall?

Based on the information and research available to us at this time, a milk recall is not necessary. Because products are pasteurized before entering the market, there is no concern about the safety of the commercial milk supply, or that this circumstance poses a risk to consumer health. Pasteurization has continuously proven to inactivate bacteria and viruses, like influenza, in milk.

Could the consumption of raw milk from these states impact human health?

FDA's longstanding position is that unpasteurized, raw milk can harbor dangerous microorganisms that can pose serious health risks to consumers, and FDA is reminding consumers of the risks associated with raw milk consumption in light of the HPAI detections. Food safety information from FDA, including information about the sale and consumption of raw milk, can be found here.

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GROW GARDENING COLUMN

BE ON THE LOOKOUT FOR DISEASES IN THE GARDEN

Ihe month of April is an exciting time in the garden. It's warm enough to get plants in the ground and the landscape is coming alive with new growth. It is also the month for many diseases to appear, including powdery mildew, leaf spot and crown rot, which are forms of fungus.

Fungi grow in high humidity, low light and during mild temperatures that occur in April and into May. While many diseases of ornamentals can be treated with fungicides, gardeners must follow the directions on the label. Keep in mind that although the diseases are caused by different pathogens, management strategies often are similar within disease groups.

It's a good idea to have any visible diseases properly diagnosed. Check with Reba Palmer at the Ottawa Co. Extension Office for assistance.

When shopping for pesticides, check the label to make sure it lists the plant being treated before applying it. Use only the recommended application rate and don't spray more often than directed on the label.

Powdery mildew looks like a white coating on leaves and occurs on many plants including lilacs, roses and crapemyrtles. Increasing air circulation around plants can help reduce the severity of powdery mildew. It's best to water plants in the morning and avoid getting the foliage wet whenever possible. In some cases, fungicides may be necessary. There are many cultivars of susceptible plants available that are resistant to powdery mildew.

Pine trees can become infected with tip blight, which kills infected branch tips if not treated. Look for resin on needles of affected branches.

Crabapple and apple trees are susceptible to cedar-apple rust and may be sprayed after orange jelly galls have formed on nearby cedars. The best way to prevent cedar-apple rush is to plant disease-resistant cultivars. The county OSU Extension office or the local garden center can help in selecting those varieties.

OTTAWA COUNTY EXTENSION

GROW GARDENING COLUMN

BE ON THE LOOKOUT FOR DISEASES IN THE GARDEN

TAP/CLICK ON EACH NAME FOR MORE INFORMATION ABOUT THAT SPECIFIC DISEASE

POWDERY MILDEW

TIP BLIGHT

CEDAR APPLE RUST

OTTAWA COUNTY EXTENSION

PASTURE RECOVERY

BRIAN C. PUGH, OSU EXTENSION AGRONOMY SPECIALIST - NE OK

Although we did see rain return to most of Eastern Oklahoma last year, recovery of forage stands was slower than expected or nonexistent. Part of this lies in the fact that desirable forages were severely injured, root health was poor, insect pests were a problem and there was an abundance of cool and warm season weeds present that when left uncontrolled used available resources (sunlight, water, nutrients) and formed a canopy that shaded the desirable forages struggling to recover. This is a series of articles aimed at addressing proven strategies to aid the recovery of introduced forage stands following drought and overgrazing in chronological order.

These strategies are part of a 3-step program to offer:
1.A rest period allowing photosynthesis, energy production/storage and root growth.
2.Providing necessary nutrients for active forage growth based on a soil test.
3.Controlling competitive plants (weeds) that are unpalatable and use resources.

As we creep into late winter, now is the time to begin thinking about cool season weed control. These weeds will manifest as either broadleaf competition in the form of buttercup, henbit, dock, thistle, poison hemlock, etc. or grassy weeds such as annual ryegrass, brome species or little barley. While we are still a few months away from active warm season pasture growth, cool season weeds can and will impede the early green up and production of our desirable forages.Couple this with the fact that cows will “pick” whatever new forage growth is present (albeit faster than the plant can regrow young tissue) and we could start the grazing season off causing further damage to our weakened forages.

Cool Season Broadleaf Weeds –If our competition is generally comprised of broadleaves, there are plenty of good herbicide options out there on the market.The key is to eliminate the weeds before they utilize the resources our forages need. This means the simplest and most cost-effective treatments should be addressed by early March...

FULL ARTICLE

PASTURE RECOVERY 2024

PASTURE RECOVERY

BRIAN C. PUGH, OSU EXTENSION AGRONOMY SPECIALIST - NE OK

...The biggest question is difficult to answer and that is how much forage do you expect these grasses to produce? We can expect bromes to produce at least 2,000 lbs. of dry matter per acre (DM/A) in the spring and this accounts for about 45-60 grazing days' worth of forage if stocked at a cow per acre. If the property is stocked at a cow per 4 acres and all the acreage has a heavy brome or ryegrass component, that is more forage than what the cows can physically consume before Bermudagrass starts its' active growth period. This essentially means there will be a large amount of cool season residue which will slow Bermuda green up and subsequent growth. The picture from a pasture on June 27, 2023 shows a field with excessive thatch build-up from brome species that were UNDERSTOCKED in late spring.This pasture had a cow per 4 acres which was not enough to maintain the brome at a low height. Therefore, Bermudagrass struggled the entire summer to reach sunlight. Scenarios like this are likely best addressed after the fact with a prescribed fire in late May through early June. This would release the Bermudagrass for regrowth.

If we know overproduction can be an issue, then we should intentionally allot just enough acreage of these cool season grasses to graze the cowherd through the spring period. A rough rule of thumb would be about 1 acre per cow for unfertilized brome or annual ryegrass, or ½ acre per cow for annual ryegrass that has had 60 lbs. of N applied in the February time period. Additional acreage could be baled around the first of May once curing weather arrives or it could simply be sprayed in February or March to remove the competition.Herbicide options need not be elaborate if control of all CS grasses is the goal. Applications of 1 pint of glyphosate (Roundup or generics) is sufficient to control little barley and bromes. Annual ryegrass can also be controlled at 1.5-2 pints unless it is a glyphosate resistant strain and then consult your local County Extension Educator for further advice. Herbicide applications of glyphosate, a non-selective herbicide, should be made before Bermudagrass breaks dormancy in the spring.Applications made after leaf emergence or even when green nodes of Bermuda are present will cause some stunting and root injury and should be avoided at all costs during this time of targeted forage recovery following a drought.

OTTAWA COUNTY EXTENSION

SMALL RUMINANT RESOURCES

1st Avian Influenza in Goats

External Parasite Fact Sheet EPP - 7019

Sheep Herd Health & Managment Fact Sheet ANSI - 3860

Small Ruminant Testing at OADDL

- Biosecurity Serology Panel
- Pregnancy Testing
- Bacterial & Fungal Cultures
- PCR Testing
- Parasitology Testing
  - Fecal Egg Count
  - Centrifugal Fecal Flotation
  - Fecal Sedimentation
  - Baermann Method

MEDIA CENTER

TAP/CLICK ON THE LINKS BELOW TO TAKE YOU TO THE ONLINE RESOURCE OR YOUTUBE VIDEO

IS THERE BERMUDA IN YOUR PASTER?

GENETIC DIFFERENCES IN CATTLE BREEDS

PARASITE MANAGEMENT AFTER DROUGHT

MOREL MUSHROOM FORAGING

NOT YOUR GRANDMA'S PETUNIAS